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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,701	01/11/2001	Henry William Kudlacik	839-824	7956

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1100 North Gelebe Road, 8th Floor
Arlington, VA 22201

EXAMINER

CUEVAS, PEDRO J

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 05/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/757,701

Applicant(s)

KUDLACIK, HENRY WILLIAM

Examiner

Pedro J. Cuevas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 and 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 13-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7 and 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of invention I (claims 1-7 and 13-18) in Paper No. 10 is acknowledged.
2. Claims 8-12 and 19-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 10.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Stator Winding Support For Superconducting Rotor Electric Machine And Method Of Forming The Same.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,752,708 to Jäger et al.

Jäger et al. clearly teaches the construction of an end winding support for electric machines, said support structure comprising:

a binding ring (12);

a lamination (24) coupled to said binding ring, said lamination having a slot (14) formed therein for receiving a winding; and

a tie (11) coupled to said lamination and said binding ring to enable said winding to be held within said slot.

6. With regards to claim 2, Jäger et al. disclose tie is arranged around a portion of said lamination and a portion of said binding ring as shown in Figure 1.

7. With regards to claim 7, Jäger et al. disclose another tie coupled to said binding ring as shown in Figure 3.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,752,708 to Jäger et al. in view of U.S. Patent No. 4,227,106 to Druss, deceased et al.

Jäger et al. disclose the construction of an end winding support for electric machines as described above.

However, it fails to disclose the use of a lamination including:

a first tooth and a second tooth defining a slot between said first tooth and said second tooth, and said first tooth and said second tooth being integral with said lamination; and

a third tooth integral with said lamination to define another slot between said second tooth and said third tooth to receive said winding.

Druss, deceased et al. teach the construction of a high voltage induction motor with a stator having:

a first tooth and a second tooth defining a slot between said first tooth and said second tooth (Figure 8), and said first tooth and said second tooth being integral with said lamination; and

a third tooth (Figure 8) integral with said lamination to define another slot between said second tooth and said third tooth to receive said winding, for the purpose of providing a core of magnetic material having a plurality of winding receiving slots formed in it.

It would have been obvious to one skilled in the art at the time the invention was made to use the stator disclosed by Druss, deceased et al. on the end winding support disclosed by Jäger et al. for the purpose of providing a core of magnetic material having a plurality of winding receiving slots formed in it.

Also, it has been held that forming in one piece an article, which has formerly been formed in two pieces and put together, involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The term "integral" is sufficiently broad to embrace constructions united by such means as fastening and welding. *In re Hotte*, 177 USPQ 326, 328 (CCPA 1973).

10. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,752,708 to Jäger et al. in view of U.S. Patent No. 3,876,893 to Ross.

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Jäger et al. disclose the construction of an end winding support for electric machines as described above.

However, it fails to disclose the use of:

a felt ring arranged around an outer circumference of said binding ring so that said felt ring is arranged between said binding ring and said lamination; and

a tire arranged around an outer circumference of said binding ring so that said tire is arranged between said binding ring and said lamination.

Ross teach the use of:

a felt ring (6) arranged around an outer circumference of said binding ring so that said felt ring is arranged between said binding ring and said lamination; and

a tire (8) arranged around an outer circumference of said binding ring so that said tire is arranged between said binding ring and said lamination,

for the purpose of providing a annular support is located within the stator core and spaced radially therefrom to establish a circumferentially extending gap therebetween and this gap is filled out by a circumferentially extending array of wedge means incorporating elastically compressible inserts so as to establish a radially resilient mounting for the annular winding support that provides for a predetermined expansion limit.

It would have been obvious to one skilled in the art at the time the invention was made to use the felt ring and tire disclosed by Ross on the end winding support disclosed by Jäger et al. for the purpose of providing a annular support is located within the stator core and spaced radially therefrom to establish a circumferentially extending gap therebetween and this gap is filled out by a circumferentially extending array of wedge means incorporating elastically

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compressible inserts so as to establish a radially resilient mounting for the annular winding support that provides for a predetermined expansion limit.

11. Claims 13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,752,708 to Jäger et al. in view of U.S. Patent No. 4,007,867 to Wielt et al.

Jäger et al. disclose the construction of an end winding support for electric machines as described above.

However, it fails to disclose a method of forming a winding support structure for use with a superconducting rotor.

Wielt et al. teach a method of making a resiliently compressed laminated core for a dynamoelectric machine for the purpose of constructing a dynamoelectric machine.

It would have been obvious to one skilled in the art at the time the invention was made to use the method disclosed by Wielt et al. on the end winding support disclosed by Jäger et al. for the purpose of a dynamoelectric machine.

12. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,752,708 to Jäger et al. in view of U.S. Patent No. 4,227,106 to Druss, deceased et al. as applied to claims 3 and 4 above, and further in view of U.S. Patent No. 4,007,867 to Wielt et al.

Jäger et al. in view of Druss disclose the construction of an end winding support as described above.

However, it fails to disclose a method of forming a winding support structure for use with a superconducting rotor.

Wielt et al. teach a method of making a resiliently compressed laminated core for a dynamoelectric machine for the purpose of constructing a dynamoelectric machine.

It would have been obvious to one skilled in the art at the time the invention was made to use the method disclosed by Wielt et al. on the end winding support disclosed by Jäger et al. for the purpose of a dynamoelectric machine.

13. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,752,708 to Jäger et al. in view of U.S. Patent No. 3,876,893 to Ross as applied to claims 5 and 6 above, and further in view of U.S. Patent No. 4,007,867 to Wielt et al.

Jäger et al. in view of Ross disclose the construction of an end winding support as described above.

However, it fails to disclose a method of forming a winding support structure for use with a superconducting rotor.

Wielt et al. teach a method of making a resiliently compressed laminated core for a dynamoelectric machine for the purpose of constructing a dynamoelectric machine.

It would have been obvious to one skilled in the art at the time the invention was made to use the method disclosed by Wielt et al. on the end winding support disclosed by Jäger et al. for the purpose of a dynamoelectric machine.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

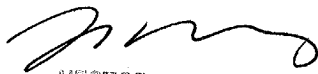
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
May 16, 2002


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SUPERVISORY PATENT EXAMINER
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